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Affordable Realistic Tactical 7

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Exhibit, TASER Weapons

1) Due to a considerable lack of knowledge about TASER weapons and a great deal of misinformation about

what they are and what they can and cannot do, it is critical for the triers of fact in this case to understand

some basic information about TASERs, how they work, and how police officers are trained to utilize them in

the field.

2) The term "TASER" has been incorrectly used to describe a variety of electrical weapons collectively

known as "stun guns". Only weapons manufactured by TASER International, Inc. (now AXON) are in fact

TASERs. The weapons used in this case were X-2 TASERs, capable of firing two cartridges without

reloading.

3) TASERs are designed to provide an option for temporarily controlling a person by causing what is known

as neuromuscular incapacitation ("NMI"). When successful, NMI causes a person to lose control of skeletal

muscles. NMI is only achieved when the current from the weapon adequately stimulates "enough" sensory

and motor nerves in the human body. Sensory nerves deliver electrical signals to the brain which causes pain

sensations. Motor nerves deliver electrical signals to muscles causing them to contract¹. Stun guns cause

local discomfort (pain) by stimulating sensory nerves in contact with the electrodes of the weapon, but stun

guns do not normally stimulate motor nerves and are not capable of causing NMI. Both stun guns and

TASERs deliver high voltage, low amperage, and pulsed electrical current. Voltage is a measure of the

difference between a positive charge and a negative charge. Amperage is the determining factor in causing

injury. Higher levels of amperage can be deadly, low levels of amperage are not deadly when applied to the

¹ See exhibit on sensory verses motor nerves.

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skin of humans: Contact burns are often caused by extended application of direct electrical current from stunguns and/or TASERs.

- 4) Stun guns deliver current by direct contact of both electrodes (located on the "working end" of the weapon) with a person's skin, whether directly or through most clothing. In contact mode the current from both stun guns and TASERs is restricted to the area being contacted by the electrodes. With an X-2 TASER weapon that distance is 1.5 inches. Only the nerves within that 1.5 inches would be stimulated. TASERs can be used by touching the electrodes to a person and activating the trigger, as they were in this case. This direct contact method is known as "drive stun mode". However TASERs were designed to deliver current in "probe mode" as the primary method for controlling someone. In probe mode a TASER launches two metal probes from the weapon to a target up to 25' away. The probes are attached to the weapon with thin wires which carry the current to the target. This method enables the current to stimulate the nerves between the probes (which separate as they travel), affecting a much larger area of said target, thus stimulating more sensory and motor nerves. Probe mode is designed to achieve NMI, drive stun mode cannot. Therefore, drive stun mode is the least likely method to control a person demonstrating extremely agitated behavior as drive stun mode causes pain, but does not cause NMI. Pain most often causes the person experiencing the pain to move violently away from the source of the pain. Such a reaction can be seen in the video from this case when Dyer tried to get away from the pain of being drive stunned.
- 5) Having exposed thousands of volunteers to the effects of TASERs, and having been exposed numerous times myself, I can testify that exposure to a TASER weapon is extremely painful, whether in probe mode or drive stun mode. Many volunteers describe the experience as a ten, on a scale of one to ten. While the effects of certain drugs and/or alcohol can reduce the intensity of the pain, viewing the video in this case demonstrate Dryer was in considerable pain when he was repeatedly drive stunned. It is also noteworthy that some parts of the human body are more sensitive to pain stimuli than others due to having more sensory nerves. In this case, the pelvic region of the male anatomy is highly sensitive to pain stimuli.

6) Police officers receiving PASER end-user training are educated on the above information along with the necessary instruction as to when and when not to use TASERs. Among the information presented in a TASER class is when possible, to avoid sensitive areas of the human body such as the groin and genitals. TASERs are just another tool in an officer's use of force options and not the be-all and end-all of how to gain voluntary compliance. Pain compliance tools and techniques are designed to persuade rational persons that continued resistance is going to be painful, therefore compliance is the best option. In this case, nothing the officers did in the way of inflicting pain was likely to gain voluntary compliance as Dryer had demonstrated he was not capable of rational thought.

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